

February 28, 2011

U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Attn: Document Control Desk

Subject: Submission of NAC-MPC FSAR, Revision 8
Docket No. 72-1025

- References:
1. U.S. Nuclear Regulatory Commission (NRC) Certificate of Compliance (CoC) No. 1025 for the NAC International NAC-MPC System, Amendment No. 6, October 4, 2010
 2. NAC-MPC Final Safety Analysis Report (FSAR), Revision 7, NAC International, January 2008
 3. NRC Letter Dated October 18, 2010 Issuing CoC No. 1025, Revision 6, for NAC-MPC System

NAC International (NAC) has incorporated Amendment 6 into Reference 2 resulting in Revision 8 of the NAC-MPC FSAR. This submittal consists of three copies of the NAC-MPC FSAR, Revision 8 as requested by Reference 3.

Revision 8 of the NAC MPC FSAR is based on Reference 2. Revision 8 incorporates the changes approved by the NRC via Reference 1 (Revisions 08A, 09A, 09B, 09C and 10A), as well as 17 new license drawings associated with the addition of Dairyland Power Cooperative's La Crosse Boiling Water Reactor fuel to the approved contents of the NAC-MPC system. No changes have been made by NAC under the 10 CFR 72.48 process through December 31, 2010. However, some minor editorial/formatting changes were made to the NAC-MPC FSAR, Revision 8. None of these editorial/formatting changes affected any of the NRC-approved information. A certification of the accuracy of the Revision 8 changes, signed by a duly authorized officer of NAC, is provided as Attachment 1.

Consistent with NAC administrative practice, the NAC MAGNASTOR FSAR, Revision 8, changed pages are uniquely identified by the revision number located in the header of each revised page. Revision bars mark the FSAR text changes. Due to text flow, some Revision 8 pages do not contain any revision bars. Revision 8 of the NAC-MPC FSAR is dated December 2010 reflecting when the incorporation of the changes took place.

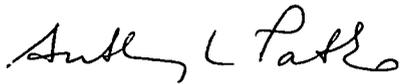
A detailed description of all of the changes incorporated in Revision 8 of the NAC-MPC FSAR is provided as Attachment 2.

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Page 2 of 2

An updated List of Effective Pages is included with each copy of Revision 8 of the NAC-MPC FSAR.

If you have any comments or questions regarding this submission, please contact me on my direct line at 678-328-1274.

Sincerely,



Anthony L. Patko
Director, Licensing
Engineering

Attachments:

1. Certification of Accuracy, NAC-MPC FSAR, Revision 8
2. List of Changes, NAC-MPC FSAR, Revision 8

Attachment 1

Certification of Accuracy

for the

**NAC-MPC FSAR
Revision 8**

NAC International

February 2011

NAC INTERNATIONAL
CERTIFICATION OF ACCURACY
PURSUANT TO 10 CFR 72. 248(c)(4)(i)

Thomas A. Danner (Affiant), Vice President, Engineering, of NAC International, hereinafter referred to as NAC, at 3930 East Jones Bridge Road, Norcross, Georgia 30092, being duly sworn, deposes and certifies that:

1. Affiant has reviewed the information described in Item 2, is personally familiar with the preparation, checking and verification of that information and is authorized to certify its accuracy.
2. The information being certified as accurate includes all of the changes incorporated into the NAC-MPC Final Safety Analysis Report, Revision 8.

STATE OF GEORGIA, COUNTY OF GWINNETT

Mr. Thomas A. Danner, being duly sworn, deposes and says:

That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information and belief.

Executed at Norcross, Georgia, this 28th day of February 2011.



Thomas A. Danner
Vice President, Engineering
NAC International

Subscribed and sworn before me this 28th day of February, 2011.



Notary Public

Attachment 2

List of Changes

for

**NAC-MPC FSAR, Revision 8
(Docket No 72-1025)**

NAC International

December 2010

List of Changes for the NAC-MPC FSAR, Revision 8

Incorporates Approved CoC 72-1025 Amendment No. 6 Changes

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
<p>Note: The List of Effective Pages and the Chapter Table of Contents, List of Figures and List of Tables have been revised accordingly to reflect the list of changes detailed below.</p>		
<p><u>Chapter 1</u></p>		
Page 1-ii	MPC-LACBWR Rev. 08A	Added reference to Appendix 1.A
Page 1-2	MPC-LACBWR Rev. 08A	Added reference to Appendix 1.A
Page 1-8, Table 1-1	MPC-LACBWR Rev. 08A	Added MPC-LACBWR to Table 1-1 list of terms and definitions
Page 1.1-1	MPC-LACBWR Rev. 08A	Section 1.1, Introduction, 5 th paragraph, 1 st sentence – changed “two configurations” to “three configurations”; added a new 6 th paragraph to address the MPC-LACBWR configuration
Page 1.1-2	MPC-LACBWR Rev. 08A	Added new last paragraph for MPC-LACBWR
Page 1.2-1	MPC-LACBWR Rev. 08A	Section 1.2, The NAC-MPC System, 1 st sentence – revised to add MPC-LACBWR; 2 nd sentence – changed “Both” to “All”
Page 1.3-1	MPC-LACBWR Rev. 08A	Section 1.3, NAC-MPC Storage System Contents, 1 st paragraph, 1 st sentence – revised to include MPC-LACBWR; added new 2 nd paragraph
<p><u>Appendix 1.A</u></p>		
<p>MPC-LACBWR Revision 08A added new Appendix 1.A, General Description of the MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor, including 17 MPC-LACBWR license drawings. The following changes were made in subsequent amendments as listed.</p>		
Page 1.A-2, Table 1.A-1	MPC-LACBWR Rev. 09C	Definition of LACBWR Damaged Fuel Assembly, item 5 – changed “intact fuel bundle” to “INTACT FUEL ASSEMBLY” and added “individual fuel rods”
Page 1.A-3, Table 1.A-1	MPC-LACBWR Rev. 09C	Definition of Fuel Debris – added “(may be placed into a handling container)”
Page 1.A-5, Table 1.A-1	MPC-LACBWR Rev. 09C	Added definition for Handling Container

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
Chapter 2		
Page 2-ii	MPC-LACBWR Rev. 08A	Added reference to Appendix 2.A
Page 2-1	MPC-LACBWR Rev. 08A	Section 2.0, Principal Design Criteria, 2 nd paragraph, 2 nd sentence – changed “two configurations” to “three configurations”; 3 rd sentence – added MPC-LACBWR; added new last sentence for MPC-LACBWR; added new 4 th paragraph to address MPC-LACBWR configuration
Page 2.1-1	MPC-LACBWR Rev. 08A	Section 2.1, Spent Fuel To Be Stored, 1 st paragraph, 1 st sentence – changed “two configurations” to “three configurations”; added new 4 th & 5 th sentences to include the MPC-LACBWR configuration
Appendix 2.A		
MPC-LACBWR Revision 08A added new Appendix 2.A, Principal Design Criteria – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor. The following changes were made in subsequent amendments as listed.		
Page 2.A.1-1	MPC-LACBWR Rev. 09A	Section 2.A.1, Spent Fuel To Be Stored in the MPC-LACBWR Storage System – inserted new 3 rd paragraph to address zirconium alloy compaction debris still present in the spent fuel pool
Page 2.A.1-3	MPC-LACBWR Rev. 09C	Section 2.A.1.3, MPC-LACBWR Damaged Fuel Can, 2 nd paragraph, 1 st sentence – changed “fuel debris handling canister” to “fuel debris handling container”
Page 2.A.1-5, Table 2.A.1-1	MPC-LACBWR Rev. 09C	Changed the units of measurement for Fuel Rod Pitch, Clad Thickness and Displacement Rod Diameter from “(cm)” to “(in)”
Chapter 3		
Page 3-ii	MPC-LACBWR Rev. 08A	Added reference to Appendix 3.A
Page 3.1-1	MPC-LACBWR Rev. 08A	Section 3.1, Structural Design, 1 st sentence – changed “two configurations” to “three configurations”; remainder of paragraph revised throughout to add the MPC-LACBWR configuration
Page 3.1-8	MPC-LACBWR Rev. 09C	Added new Section 3.1.1.3 titled “Description of the MPC-LACBWR Storage System”

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
Page 3.4.1-1	MPC-LACBWR Rev. 08A	Section 3.4, General Standards for Casks – revised throughout to include the MPC-LACBWR configuration
Appendix 3.A		
MPC-LACBWR Revision 08A added new Appendix 3.A, Structural Evaluation – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor. The following changes were made in subsequent amendments as listed.		
Page 3.A.4-16, Figure 3.A.4.4.1-2	MPC-LACBWR Rev. 09C	Added Note 1
Chapter 4		
Page 4-ii	MPC-LACBWR Rev. 08A	Added reference to Appendix 4.A
Page 4.1-1	MPC-LACBWR Rev. 08A	Section 4.0, Thermal Evaluation, 1 st paragraph, 1 st sentence – changed “two configurations” to “three configurations”; revised remainder of paragraph to include MPC-LACBWR configuration;; added new 4 th paragraph to address MPC-LACBWR configuration; 5 th paragraph – added new last sentence for MPC-LACBWR
Page 4.1-1	MPC-LACBWR Rev. 09C	Section 4.0, Thermal Evaluation, 2 nd paragraph – added “(12.5 kW/36 assemblies = 0.347 kW per fuel assembly)” to clarify fuel assembly heat load
Page 4.1-2	MPC-LACBWR Rev. 08A	1 st full paragraph, last sentence – changed “both configurations” to “the Yankee-MPC and CY-MPC configurations”; 3 rd paragraph – added new last sentence for MPC-LACBWR
Appendix 4.A		
MPC-LACBWR Revision 08A added new Appendix 4.A, Thermal Evaluation – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor. The following changes were made in subsequent amendments as listed.		
Page 4.A-ii	MPC-LACBWR Rev. 09C	List of Figures – revised title of Figure 4.A.3-1 by adding “not in the DFC”
Page 4.A.1-1	MPC-LACBWR Rev. 09C	Section 4.A.1, Thermal Evaluation of the MPC-LACBWR System, 2 nd paragraph – added 2 nd sentence

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
Page 4.A.3-1	MPC-LACBWR Rev. 09C	Section 4.A.3, Thermal Evaluation of the MPC-LACBWR for Normal Conditions, 2 nd paragraph – deleted 2nd sentence and added new sentences 2-6
Page 4.A.3-4, Table 4.A.3-3	MPC-LACBWR Rev. 09C	Revised table throughout
Page 4.A.3-5	MPC-LACBWR Rev. 09C	Section 4.A.3.1, 3rd paragraph – added sentences 2-9
Page 4.A.3-11, Figure 4.A.3-1	MPC-LACBWR Rev. 09C	Added “not in the DFC” to the title of figure
Page 4.A.3-15	MPC-LACBWR Rev. 09C	Section 4.A.3.1.2, Three-Dimensional MPC-LACBWR Transfer Cask and Canister Model, 3 rd paragraph – revised 2 nd sentence & added 3 rd & 4 th sentences
Page 4.A.3-29, Table 4.A.3-5	MPC-LACBWR Rev. 09A	Revised the Maximum Temperature (°F) column to correct computer input error (superseded by Rev. 09C)
Page 4.A.3-29, Tables 4.A.3-4 & 4.A.3-5	MPC-LACBWR Rev. 09C	Revised Maximum Temperature column of both tables using the compacted fuel properties
Page 4.A.3-30, Table 4.A.3-6	MPC-LACBWR Rev. 09C	Revised the Maximum Temperature column using the compacted fuel properties
Page 4.A.3-31	MPC-LACBWR Rev. 09C	Section 4.A.3.5, Maximum MPC-LACBWR Internal Pressure for Normal Conditions, 1st paragraph, 2nd sentence – changed “release of 30 percent of the fission gas” to “release of 70 percent of the fission gas”; 2nd paragraph, last sentence – changed “releasing 30 percent of their total fission gas” to “releasing 70 percent of their total fission gas”
Page 4.A.3-34	MPC-LACBWR Rev. 09C	Canister Pressure subheading – revised two equations at bottom of page
Page 4.A.3-35	MPC-LACBWR Rev. 09C	Revised equation

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Chapter 5		
Page 5-ii	MPC-LACBWR Rev. 08A	Added reference to Appendix 5.A
Page 5.1-1	MPC-LACBWR Rev. 08A	Section 5.0, Shielding Evaluation, 1 st sentence – changed “section” to “chapter”; 2 nd sentence – changed “two configurations” to “three configurations”; added new 2 nd paragraph to address MPC-LACBWR
Appendix 5.A		
MPC-LACBWR Revision 08A added new Appendix 5.A, Shielding Evaluation – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor. The following changes were made in subsequent amendments as listed.		
Page 5.A.1-2	MPC-LACBWR Rev. 09C	1st, 2nd, 3rd & 4th full paragraphs – revised throughout to address bounding payload for MPC-LACBWR spent fuel assemblies; last paragraph, 1st sentence – added “Release 1.30” to show specific version of MCNP used
Page 5.A.1-5, Figure 5.A.1-1	MPC-LACBWR Rev. 09C	Added new figure
Page 5.A.1-5, Figure 5.A.1-1	MPC-LACBWR Rev. 10A	Slot B note under figure – added “(maximum of four Exxon fuel assemblies)”
Page 5.A.3-2	MPC-LACBWR Rev. 09C	Added new paragraph to the end of Section 5.A.3.1 to justify that the homogenized LACBWR analysis is conservative
Page 5.A.4-1	MPC-LACBWR Rev. 09C	Section 5.A.4.1, MPC-LACBWR Computational Methods, 2nd paragraph – added new 3rd & 4th sentences to provide information on cross-sections used in the analysis
Chapter 6		
Page 6-ii	MPC-LACBWR Rev. 08A	Added reference to Appendix 6.A
Page 6.1-2	MPC-LACBWR Rev. 08A	1 st sentence – changed “two configurations” to “three configurations”; added new 4 th sentence to address the MPC-LACBWR configuration
Page 6.1.1-1	MPC-LACBWR Rev. 08A	Section 6.1, Discussion and Results, 1 st paragraph – added new last sentence for MPC-LACBWR; last paragraph – added “and/or appendix”

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
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Appendix 6.A		
MPC-LACBWR Revision 08A added new Appendix 6.A, Criticality Evaluation – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor. The following changes were made in subsequent amendments as listed.		
Page 6.A.1-1	MPC-LACBWR Rev. 09C	Section 6.A.1, Discussion and Results, 2nd paragraph – replaced last sentence with two new sentences for clarification of optimum moderator density
Page 6.A.1-2	MPC-LACBWR Rev. 09C	Last line of last paragraph before table – changed “Section 6.A.4.4” to “Section 6.A.3.4” to reflect section renumbering
Page 6.A.1-3	MPC-LACBWR Rev. 09C	Added new paragraphs 1-4 to provide additional discussion on the maximum reactivity configuration
Page 6.A.3-2	MPC-LACBWR Rev. 09C	Section 6.A.3.1.1, Fuel Assembly Models, last paragraph – added new last sentence
Page 6.A.3-19, Table 6.A.3-9	MPC-LACBWR Rev. 09C	Last column, next to last line – changed “9.29E-02” to “9.30E-03” to correct editorial error
Page 6.A.4-1	MPC-LACBWR Rev. 09C	Section 6.A.4.1, Calculation Method, changed “Section 6.A.4.4” to “Section 6.A.3.4 to reflect renumbering; added two new last sentences
Pages 6.A.4-2 & 6.A.4-3	MPC-LACBWR Rev. 09C	Fabrication Tolerances subheader – 2 nd sentence – added “(see Figure 6.A.3-2)”; added new 3 rd sentence
Page 6.A.4-3	MPC-LACBWR Rev. 09C	Component Shift subheader – added new last sentence; Damaged Fuel Evaluations – section number changed from “6.A.4.3” to “6.A.4.2.2”
Page 6.A.4-4	MPC-LACBWR Rev. 09C	1st partial paragraph – added new last sentence; Fuel/Water Mixture subheading – added new 2 nd paragraph
Page 6.A.4-5	MPC-LACBWR Rev. 09C	Storage Cask Evaluations section number changed from “6.A.4.3.1” to “6.A.4.2.3”; Criticality Results section number changed from “6.A.4.4” to “6.A.4.3”; Undamaged Fuel Maximum Reactivity Basket Confirmation section number changed from “6.A.4.4.1” to “6.A.4.3.1”

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
Page 6.A.4-7	MPC-LACBWR Rev. 09C	Damaged Fuel Can (DFC) Evaluations section number changed from "6.A.4.4.2" to "6.A.4.3.2"
Page 6.A.4-8	MPC-LACBWR Rev. 09C	1st partial paragraph – new next-to-last sentence added for clarity
Page 6.A.4-9	MPC-LACBWR Rev. 09C	Storage Cask Evaluations section number changed from "6.A.4.4.3" to "6.A.4.3.3"; Allowed Fuel Specifications and Comparison to USL Range of Applicability section number changed from "6.A.4.4.4" to "6.A.4.3.4"
Page 6.A.4-21, Table 6.A.4-8	MPC-LACBWR Rev. 09C	Added 2 bottom rows to each section of table to model a larger number of missing fuel rods
Page 6.A.4-22, Table 6.A.4-9	MPC-LACBWR Rev. 09C	Added rows 9-12 & 21-24 to model a larger number of missing fuel rods
Page 6.A.4-23, Table 6.A.4-10	MPC-LACBWR Rev. 09C	Corrected two line items under Mix. Height column: line 2 from "0.23" to "0.25" and line 8 from "0.9" to "0.8"
Pages 6.A.5-4 & 6.A.5-5	MPC-LACBWR Rev. 09C	Section 6.A.5.3, Critical Benchmarks, 3 rd paragraph – added new 2 nd sentence to show correlation between case number listed and the experiment identification
Chapter 7		
Page 7-i	MPC-LACBWR Rev. 08A	Added reference to Appendix 7.A
Page 7-1	MPC-LACBWR Rev. 08A	Section 7.0, Confinement, 1 st paragraph (split into 2 paragraphs), 1 st sentence – changed "two configurations" to "three configurations"; added new 4 th sentence to address MPC-LACBWR; 5 th sentence – changed "two configurations" to "three configurations"; added 2 new last sentences
Appendix 7.A		
MPC-LACBWR Revision 08A added new Appendix 7.A, Confinement – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor.		
Chapter 8		
Page 8-i	MPC-LACBWR Rev. 08A	Added reference to Appendix 8.A
Page 8-1	MPC-LACBWR Rev. 08A	Section 8.0, Operating Procedures, 1 st paragraph – revised 1 st sentence for clarity and 2 nd sentence to include MPC-LACBWR

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
Appendix 8.A		
MPC-LACBWR Revision 08A added new Appendix 8.A, Operating Procedures – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor. The following changes were made in subsequent amendments as listed.		
Page 8.A.1-6	MPC-LACBWR Rev. 09C	Items 44.d. & 44.e. – revised hydrostatic pressure test acceptance criteria
Chapter 9		
Page 9-i	MPC-LACBWR Rev. 08A	Added reference to Appendix 9.A
Page 9-1	MPC-LACBWR Rev. 08A	Section 9.0, Acceptance Tests and Maintenance Program, 1 st paragraph – revised throughout to include MPC-LACBWR; added new 2 nd paragraph to address MPC-LACBWR
Page 9.1-7	MPC-LACBWR Rev. 08A	Section 9.1.6, Neutron-Absorber Tests, 1 st paragraph, 2 nd sentence – revised throughout; last sentence – added “and, subsequently, of Ceradyne Corporation of Chicoutimi (Quebec), Canada”
Appendix 9.A		
MPC-LACBWR Revision 08A added new Appendix 9.A, Acceptance Tests and Maintenance Program – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor. The following changes were made in subsequent amendments as listed.		
Page 9.A.2-1	MPC-LACBWR Rev. 09C	Section 9.A.2.1, Pressure Testing of the TSC, 2 nd sentence – changed “of 10 minutes” to “10-minute hold period”; deleted original last sentence & added two new sentences to the end of the paragraph to clarify hydrostatic pressure test acceptance criteria
Page 9.A.2-5	MPC-LACBWR Rev. 09C	Section 9.A.2.7.2, Wet Chemistry Test Performance, 1 st paragraph – added new last sentence to clarify neutron absorber test methods
Chapter 10		
Page 10-i	MPC-LACBWR Rev. 08A	Added reference to Appendix 10.A
Page 10.1-1	MPC-LACBWR Rev. 08A	Section 10.0, Radiation Protection, 1 st paragraph – revised throughout to include MPC-LACBWR; added new 2 nd paragraph to address MPC-LACBWR

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
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Appendix 10.A

MPC-LACBWR Revision 08A added new Appendix 10.A, Radiation Protection – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor. The following changes were made in subsequent amendments as listed.

Page 10.A.3-4, Table 10.A.3-1	MPC-LACBWR Rev. 09C	Steps 7 & 8 – revised column showing average dose rate (mrem/hr)
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Chapter 11

Page 11-v	MPC-LACBWR Rev. 08A	Added reference to Appendix 11.A
Page 11-1	MPC-LACBWR Rev. 08A	Section 11.0, Accident Analysis, 3 rd paragraph (split into 2 paragraphs), 1 st sentence – changed “two configurations” to “three configurations”; added new 4 th sentence to address MPC-LACBWR; 4 th paragraph – added new 2 nd sentence for MPC-LACBWR
Page 11.1-1	MPC-LACBWR Rev. 08A	Section 11.1, Off-Normal Events, 2 nd paragraph (split into 2 paragraphs), 1 st sentence – changed “two configurations” to “three configurations”; added new last sentence to address MPC-LACBWR; 3 rd paragraph – added new sentence for MPC-LACBWR
Page 11.2-1	MPC-LACBWR Rev. 08A	Section 11.2, Accidents, 2 nd paragraph (split into 2 paragraphs), 1 st sentence – changed “two configurations” to “three configurations”; added new last sentence to address MPC-LACBWR; 3 rd paragraph – added new sentence for MPC-LACBWR
Page 11.3-1	MPC-LACBWR Rev. 08A	Section 11.3, Design Basis Loading of the Yankee-MPC Transportable Storage Canister, 4 th paragraph – added new last sentence to address MPC-LACBWR
Page 11.4-1	MPC-LACBWR Rev. 08A	Section 11.4, Evaluation of Site Specific Fuel Components, 2 nd paragraph – revised throughout for clarification and to include MPC-LACBWR

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
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Appendix 11.A		
MPC-LACBWR Revision 08A added new Appendix 11.A, Accident Analysis – MPC-LACBWR – MPC Storage System for Dairyland Power Cooperative La Crosse Boiling Water Reactor. The following changes were made in subsequent amendments as listed.		
Page 11.A.1-3	MPC-LACBWR Rev. 09C	1 st full paragraph, 1 st sentence – changed “475°F” to “475°K” [the value should have been listed as Kelvin (K)]; 2 nd sentence – changed “10.1 psig” to “11.4 psig”
Page 11.A.2-1	MPC-LACBWR Rev. 09C	Section 11.A.2.1.1, MPC-LACBWR Canister Maximum Internal Pressures, 1 st paragraph, 2 nd sentence – changed “30%” to “70%”; 3 rd sentence – changed “680°F” to “400°F”
Page 11.1.2-2	MPC-LACBWR Rev. 09C	Revised 1st equation and all numbers in the last paragraph of that section Section 11.A.2.1.2, MPC-LACBWR Canister Maximum Stress Due to Internal Pressure, 1st paragraph, 2nd sentence – changed “20 psig” to “32.1 psig”; 2nd paragraph, 1st sentence – changed “20 psig” to “32.1 psig”; 2nd sentence – changed “20 psig” to “32.1 psig” & “11.11 ksi and 44.99 ksi” to “15.19 ksi and 61.88 ksi”; 3rd sentence – changed “46.23 ksi and 66.04 ksi” to “45.65 ksi and 65.2 ksi”; last sentence – changed margin of safety from “0.47” to “+0.05”
Page 11.A.2-24	MPC-LACBWR Rev. 09B	Section 11.A.2.12.2.1, Analysis of the MPC-LACBWR Concrete Cask – deleted last part of last sentence, “with the following modifications ... concrete pad”; added two new sentences to address soil depth at the MPC-LACBWR site and modifications that were made to concrete strength density and to the elastic modulus of the soil underneath the concrete pad
Page 11.A.2-25	MPC-LACBWR Rev. 09B	1st table at top of page – revised to add line for Concrete Pad Compressive Strength; also changed 1 st column heading from “Soil Property” to “Property”, line one “Density” to “Soil Density” and line two “Elastic Modulus” to “Soil Elastic Modulus”; 2 nd table – changed peak acceleration numbers; last paragraph, 2 nd sentence – changed “DLF of 1.09 (25/22.9)” to “DLF of 1.02 (25/24.6)”

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
Page 11.A.2-26	MPC-LACBWR Rev. 09B	1 st line of page – changed “at top of the canister” to “at the top of the canister”
Page 11.A.2-26	MPC-LACBWR Rev. 09C	Support Disk and Weldment Stress Analysis subheading, 1 st paragraph – added two new last sentences to provide justification for employing a different mesh in the evaluation of the basket
Page 11.A.2-27	MPC-LACBWR Rev. 09B	1 st full paragraph, 1 st sentence – changed “20.5g” to “21.9g”; 1 st paragraph below table, 1 st sentence – changed “the 20.5g results in a peak acceleration of 20.9g” to “the 21.9g results in a peak acceleration of 22.3g”
Page 11.A.3-1	MPC-LACBWR Rev. 09C.	Section 11.A.3, Design Basis Loading of the MPC-LACBWR Transportable Storage Canister – revised throughout; deleted Sections 11.A.3.1 & 11.A.3.2 that were in Revision 08A
Page 11.A.4-1	MPC-LACBWR Rev. 09C	End Drop Evaluation subheading, table following 2 nd paragraph, last column – changed “0.343” to “0.136”; 3 rd paragraph – revised throughout
Page 11.A.6-1	MPC-LACBWR Rev. 09C	Section 11.A.6, References – added new reference [A4]
Chapter 12		
Page 12-1	MPC-LACBWR Rev. 08A	Section 12.0, Operating Controls and Limits, 3 rd paragraph, 1 st sentence – changed “two configurations” to “three configurations”; added new 5 th sentence to address MPC-LACBWR 4 th paragraph – revised throughout to include MPC-LACBWR 5 th paragraph – deleted
Page 12-2, Table 12-1	MPC-LACBWR Rev. 08A	Table revised throughout to include MPC-LACBWR
Appendix 12.A		
MPC-LACBWR Revision 08A revised Appendix 12.A, Technical Specifications for the NAC-MPC System		
Page 12.A-2	MPC-LACBWR Rev. 08A	1 st paragraph – revised throughout; added new 2 nd paragraph to include MPC-LACBWR

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
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Appendix 12.B		
MPC-LACBWR Revision 08A revised Appendix 12.B, Approved Contents and Design Features for the NAC-MPC System		
Page 12.B-2	MPC-LACBWR Rev. 08A	1 st paragraph – revised throughout; added new 2 nd paragraph to include MPC-LACBWR
Appendix 12.C		
MPC-LACBWR Revision 08A revised Appendix 12.C, Technical Specification Bases for the NAC-MPC System as listed.		
Page 12.C.1-1	MPC-LACBWR Rev. 08A	Section C 1.0, Introduction – revised throughout to include MPC-LACBWR storage system
Page 12.C.2-1	MPC-LACBWR Rev. 08A	Section C 2.0, Approved Contents, Background – 2 nd , 3 rd & 4 th paragraphs revised throughout to include MPC-LACBWR storage system; Applicable Safety Analysis – added “or closure lid”; Approved Contents, C 2.1.1 – revised throughout to include MPC-LACBWR storage system
Page 12.C.2-2	MPC-LACBWR Rev. 08A	Continuation of C 2.1.1; C 2.1.2 – added “CY-MPC”; C 2.1.3 – new section added for MPC-LACBWR
Page 12.C.2-3	MPC-LACBWR Rev. 08A	Approved Content Limits and Violations, C 2.2.1 – added “or of B2.1.3 in Appendix 12.B”; C 2.2.2 and C.2.2.3, last sentence – changed “10 CFR 72.216” to “10 CFR 72.242”; References – added new section and appendix references for MPC-LACBWR
Page 12.C.3-1	MPC-LACBWR Rev. 08A	Section C 3.0, Limiting Conditions for Operation (LCO) Applicability, LCOs – added “and Section 3.0 in Appendix 12.A”
Page 12.C.3-4	MPC-LACBWR Rev. 08A	Section C 3.0, Surveillance Requirement (SR) Applicability, Surveillance Requirements (SRs) – added “and Section 3.0 in Appendix 12.A”
Page 12.C.3-9	MPC-LACBWR Rev. 08A	Section C 3.1, NAC-MPC SYSTEM Integrity, C 3.1.1, CANISTER Maximum Time in Vacuum Drying, Background, 1 st paragraph – revised throughout to include MPC-LACBWR storage system; 2 nd paragraph – added “for the Yankee-MPC and CY-MPC systems”; added new 3 rd paragraph for MPC-LACBWR

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Page 12.C.3-10	MPC-LACBWR Rev. 08A	Applicable Safety Analysis – added new 2 nd paragraph for MPC-LACBWR
Page 12.C.3-12	MPC-LACBWR Rev. 08A	Applicable Safety Analysis – added new last paragraph for MPC-LACBWR; LCO – added “the Yankee-MPC and CY-MPC”
Page 12.C.3-13	MPC-LACBWR Rev. 08A	Applicability, 1 st sentence – added “Yankee-MPC and CY-MPC”
Page 12.C.3-14	MPC-LACBWR Rev. 08A	References – added Sections “4.A.3” and “8.A.1”
Page 12.C.3-15	MPC-LACBWR Rev. 08A	Section 3.1, NAC-MPC SYSTEM Integrity, C 3.1.2, CANISTER Vacuum Drying Pressure, Background, 1 st paragraph – revised throughout to include MPC-LACBWR storage system; Applicable Safety Analysis, next-to-last sentence – changed “ $\leq 3\text{mm Hg}$ ” to “ $\leq 3\text{ torr}$ ”
Page 12.C.3-16	MPC-LACBWR Rev. 08A	Applicable Safety Analysis – changed “ $\leq 10\text{mm Hg}$ ” or “ 10mm Hg ” to “ $\leq 10\text{ torr}$ ” or “ 10 torr ” in 4 places; changed “ $\leq 3\text{mm Hg}$ ” to “ $\leq 3\text{ torr}$ ” in 2 places; LCO – changed “ $\leq 10\text{mm Hg}$ ” to “ $\leq 10\text{ torr}$ ”
Page 12.C.3-17	MPC-LACBWR Rev. 08A	Actions, B.1 – added new last paragraph to include MPC-LACBWR
Page 12.C.3-18	MPC-LACBWR Rev. 08A	References – added Sections “4.A.3”, “7.A.1” and “8.A.1”
Page 12.C.3-19	MPC-LACBWR Rev. 08A	Section 3.1, NAC-MPC SYSTEM Integrity, C 3.1.3, CANISTER Helium Backfill Pressure, Background, 1 st paragraph – revised throughout to include MPC-LACBWR storage system
Page 12.C.3-20	MPC-LACBWR Rev. 08A	Applicable Safety Analysis – changed “ $\leq 3\text{mm Hg}$ ” to “ $\leq 3\text{ torr}$ ” in 2 places; LCO, 2 nd sentence – changed “(0 [+1, 0])” to “(0 [+2, 0])” and added “for the Yankee-MPC and the CY-MPC systems and 99.995% for the MPC-LACBWR system”
Page 12.C.3-22	MPC-LACBWR Rev. 08A	References – added Sections “4.A.3”, “7.A.1” and “8.A.1”

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Page 12.C.3-23	MPC-LACBWR Rev. 08A	Section 3.1, NAC-MPC SYSTEM Integrity, C 3.1.4, CANISTER Maximum Time in the TRANSFER CASK, Background, 1 st paragraph – revised throughout to include MPC-LACBWR storage system
Page 12.C.3-25	MPC-LACBWR Rev. 08A	Actions, 2 nd paragraph, 1 st sentence – changed “(+1, -0)” to “(+2, -0)”; References – added Sections “4.A.3”, “8.A.1”, “8.A.2” and “8.A.3”
Page 12.C.3-26	MPC-LACBWR Rev. 08A	Section 3.1, NAC-MPC SYSTEM Integrity, C 3.1.5, CANISTER Helium Leak Rate, Background, 1 st paragraph – revised throughout to include MPC-LACBWR storage system; 2 nd paragraph, 3 rd sentence – added “and port cover weld”
Page 12.C.3-27	MPC-LACBWR Rev. 08A	Applicable Safety Analysis, 1 st paragraph, last sentence – revised throughout; 2 nd paragraph, next-to-last sentence – revised throughout
Page 12.C.3-28	MPC-LACBWR Rev. 08A	References – added Sections “7.A.1” and “8.A.1”
Page 12.C.3-29	MPC-LACBWR Rev. 08A	Section 3.1, NAC-MPC SYSTEM Integrity, C 3.1.6, CONCRETE CASK Heat Removal System, Applicable Safety Analysis, 2 nd paragraph, last sentence – added “for Yankee-MPC and CY-MPC systems”; added new last paragraph for MPC-LACBWR
Page 12.C.3-30	MPC-LACBWR Rev. 08A	LCO, 1 st sentence – added “for Yankee-MPC and CY-MPC systems”; last sentence – added “for the Yankee-MPC and CY-MPC systems”; Applicability, last sentence – added “for the Yankee-MPC and CY-MPC systems”
Page 12.C.3-32	MPC-LACBWR Rev. 08A	References – added “Appendix 4.A” and “Appendix 11.A”
Page 12.C.3-33	MPC-LACBWR Rev. 08A	Section 3.1, NAC-MPC SYSTEM Integrity, C 3.1.7, Fuel Cooldown Requirements, Background, 1 st paragraph, 2 nd sentence – revised throughout; 2 nd paragraph, 1 st sentence – revised throughout; 2 nd sentence – added “or closure lid”
Page 12.C.3-36	MPC-LACBWR Rev. 08A	References – Added Sections “4.A.3”, “8.A.2” and “8.A.3”

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Page 12.C.3-38	MPC-LACBWR Rev. 08A	Section 3.2, NAC-MPC SYSTEM Radiation Protection, C 3.2.1, CANISTER Surface Contamination, Background, 1 st sentence – changed “an empty CANISTER” to “a CANISTER”; 4 th sentence – deleted “accessible” and added “of the CANISTER”; LCO, 1 st sentence – revised throughout; 2 nd sentence – added “(Section 11.A.1.5 for MPC-LACBWR)”
Page 12.C.3-39	MPC-LACBWR Rev. 08A	LCO, 1 st paragraph – revised throughout; deleted 2 nd paragraph; Applicability – revised throughout; Actions, 1 st paragraph, 2 nd sentence – deleted “and TRANSFER CASK”; A.1, 1 st sentence – revised throughout
Page 12.C.3-40	MPC-LACBWR Rev. 08A	Surveillance Requirements, SR 3.2.1.1, 1 st sentence – deleted “accessible”; deleted SR 3.2.1.2; References – added Section “8.A.1” to no. 1 and Section “11.A.1.5” to no. 2
Page 12.C.3-42	MPC-LACBWR Rev. 08A	Actions, A.1, 1 st sentence – added “or in Section B2.0 of Appendix 12.B for the MPC-LACBWR”; B.1, 2 nd sentence – revised throughout
Page 12.C.3-43	MPC-LACBWR Rev. 08A	Surveillance Requirements, SR 3.2.2.1, 1 st sentence – deleted “after transfer of the CANISTER into the CONCRETE CASK and”; last sentence – changed “Figure 12A3-1” to “Figure A.3-1”; References – added Sections “5.A.1” and “8.A.2” to no. 2
Chapter 13		
MPC-LACBWR Revision 08A revised Chapter 13 as listed.		
Page 13.1-1	MPC-LACBWR Rev. 08A	Section 13.1, Introduction – revised throughout
Page 13.1-2, Table 13.1-1	MPC-LACBWR Rev. 08A	Revised table title and table throughout (for clarity) and added footnote

Chapter/Page/ Figure/Table	Source of Change: NAC-MPC Amendment Revision No.	Description of Change
Page 13.2-1	MPC-LACBWR Rev. 08A	<p>Section 13.2, NAC Quality Assurance Program Synopsis – added new text for clarity</p> <p>Section 13.2.1, Organization, 1st paragraph, 1st sentence – deleted “& Chief Executive”; 2nd paragraph, next-to-last sentence – deleted “& Chief Executive”; last sentence – changed “will be capable of qualifying as a lead auditor” to “qualifies as a lead auditor”; last paragraph – revised throughout</p> <p>Section 13.2.2, Quality Assurance Program, 1st sentence – deleted old 1st sentence; last sentence – revised throughout</p>
Page 13.2-2	MPC-LACBWR Rev. 08A	<p>Section 13.2.3, Design Control, 2nd paragraph – revised throughout; 3rd paragraph – changed “trained, cognizant design personnel” to “trained and cognizant design personnel,”; 4th paragraph, 5th sentence – revised throughout</p>
Page 13.2-3	MPC-LACBWR Rev. 08A	<p>Section 13.2.4, Procurement Document Control, 2nd paragraph – changed “purchase orders” to “procurement actions”</p> <p>Section 13.2.6, Document Control, 1st paragraph – revised throughout</p>
Page 13.2-4	MPC-LACBWR Rev. 08A	<p>Section 13.2.7, Control of Purchased Items and Services, 1st paragraph, 1st sentence – deleted “and approved”; 2nd sentence – changed “based upon” to “based on”</p>
Page 13.2-5	MPC-LACBWR Rev. 08A; editorial	<p>Section 13.2.10, Inspection, last paragraph, 1st sentence – changed “are used to assure verification” to “ensure verification”</p> <p>Section 13.2.11, 2nd paragraph, 1st sentence – changed “assure” to “ensure”</p>
Page 13.2-6	MPC-LACBWR Rev. 08A	<p>Section 13.2.12, Control of Measuring and Testing Equipment, 2nd paragraph, 1st sentence – added “as quality records”</p>

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Page 13.2-7	MPC-LACBWR Rev. 08A	Section 13.2.15, Control of Nonconformance Items, 2 nd paragraph, 2 nd sentence – revised throughout Section 13.2.16, Corrective Action, 1 st paragraph – changed “malfunction” to “malfunctions”; 2 nd paragraph, 2 nd sentence – deleted “& Chief Executive on an annual basis”
Page 13.2-8	MPC-LACBWR Rev. 08A	1 st paragraph, 1 st sentence – changed “etc.” to “and related documents”
Page 13.2-9, Figure 13.2-1	MPC-LACBWR Rev. 08A	Revised figure title & inserted new organization chart
Page 13.3-1	MPC-LACBWR Rev. 08A	Added new Section 13.3, References